

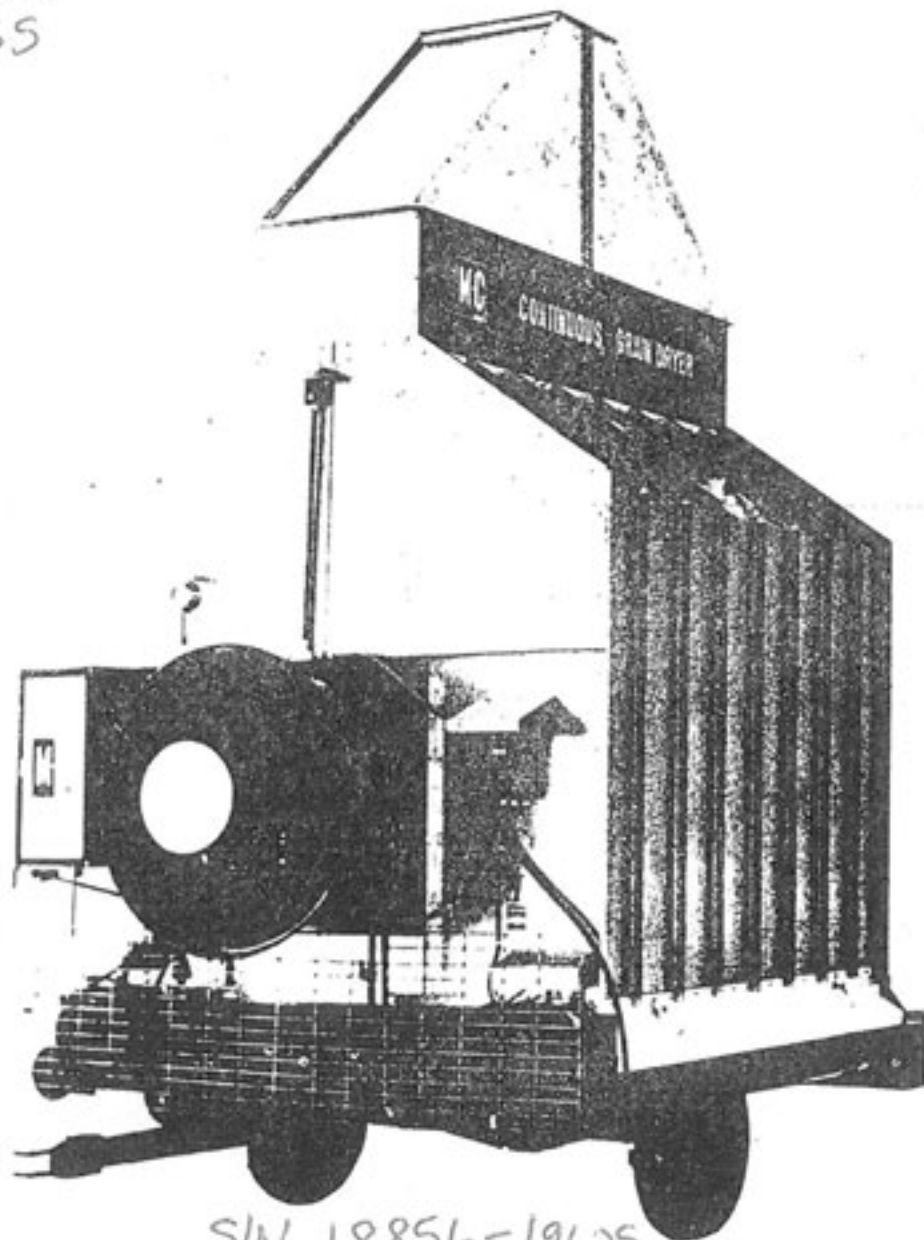
M-C

200

MODEL "250" CONTINUOUS GRAIN DRYER

ASSEMBLY-OPERATION AND MAINTENANCE INSTRUCTIONS

Earlier Models
18388 - 18855



S/N 18856-19625

MATHEWS COMPANY • CRYSTAL LAKE, ILLINOIS, 60014 • U. S. A.

TABLE OF CONTENTS

SECTION I

Model "250" Dryer Dimensions	Page 1
"250" Dryer Installation Instructions	Page 2
"250" Operating Instructions	Page 3

SECTION II

Trouble Shooting	Page 5
Fenwal Ignition.....	Page 5
Lubrication	Page 7
Conversion to Dryeration.....	Page 7
Variable Drive Belt Installation	Page 7

SECTION III

Main Machine Illustration	Page 8
Main Machine Illustration Cut-A-Way	Page 9
Front End Controls	Page 10
Moisture Control	Page 10
Side Cover Latch	Page 10
Cross Auger Assembly	Page 11
Hopper Assembly	Page 12
Piping Assembly	Page 13
Front Channel Assembly	Page 14
Gear Box Assembly	Page 15
Level Switch Assembly.....	Page 15
Maurey Variable Speed Assembly	Page 16
LP Modulating Valves	Page 17
"250" Wiring Diagram	Page 18
Instructions for Ordering Parts	Page 19

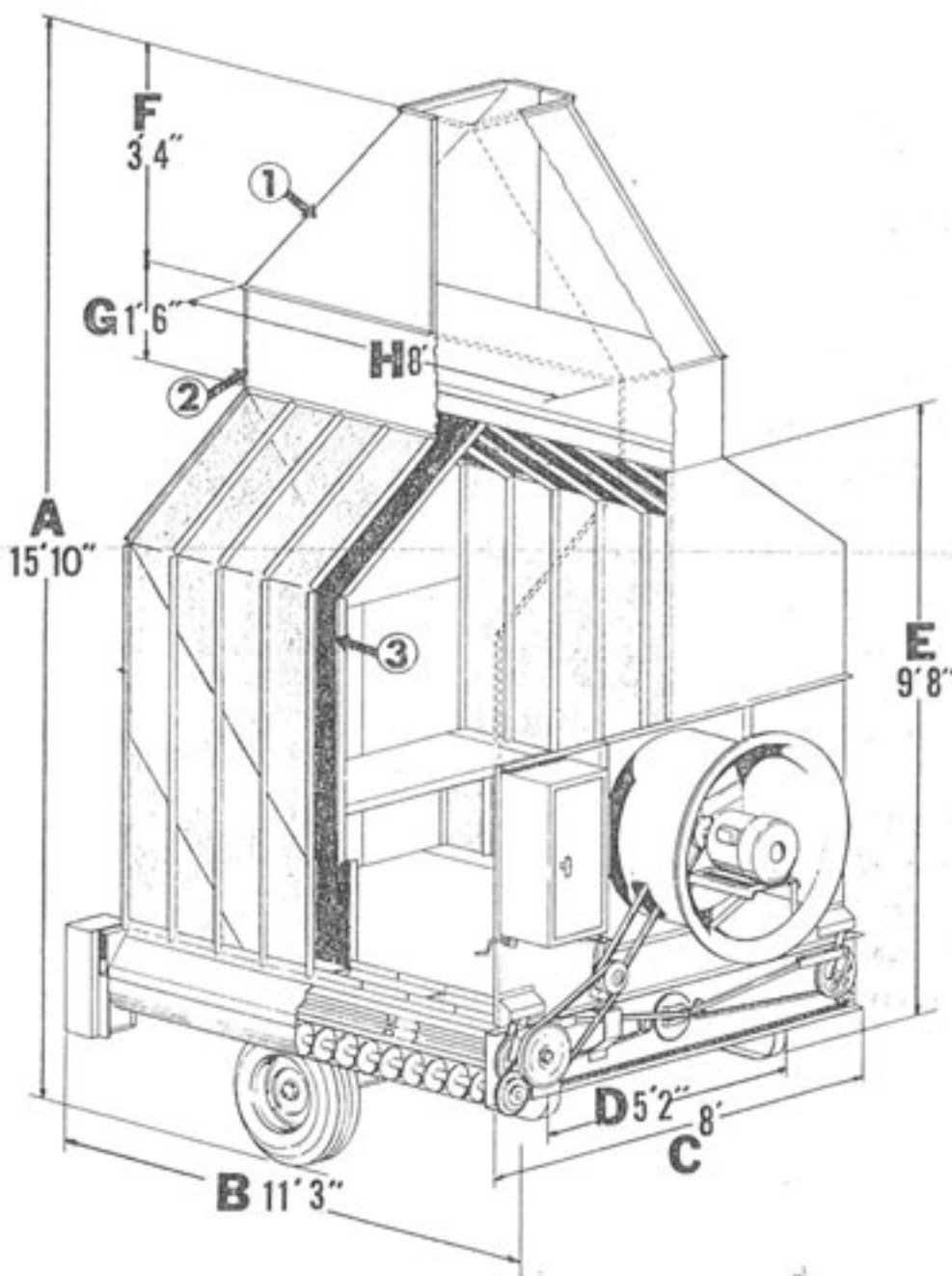
MODEL "250" DRYER DIMENSIONS

- A 15' - 10" OVERALL HEIGHT (ON WHEELS)
 B 11' - 3" OVERALL LENGTH
 C 8' - 0" OVERALL WIDTH
 D 5' - 2" SKID WIDTH
 E 9' - 8" SHIPPING HEIGHT
 F 3' - 4" EXTENSION HOPPER
 G 1' - 6" HOPPER
 H 8' - 0" COLUMN LENGTH
 *6' - 11" USABLE SKID PAD (NOT SHOWN)

*SHIPPING WEIGHT 3,360 #

HOLDING CAPACITY

# 1. EXTENSION HOPPER	36 BU.
# 2. HOPPER	21 BU.
# 3. GRAIN COLUMN	67 BU.
	124 BU.



"250" DRYER INSTALLATION INSTRUCTIONS

1. Installation of the dryer.

If the dryer is to remain portable set it up with 2 blocks directly in front of the axle and blocks on the four corners of skids.

If permanent installation is desired, remove axle and block dryer or lay a concrete slab for the machine to rest on. Use a vibration pad between skid and concrete. Do not use concrete blocks.

2. After placing the dryer in its desired location, assemble and install hopper on the machine. See page 12.

3. Assemble rear cross auger. See page 11. Adjust chains on gear box so that there is 1/4" of play in both chains.

4. Place fan guard on machine using 5/16 x 1-1/2" J-Bolt (1218255). Mount wire guard brk'ts. On machine - 2 on bottom of front channel and 2 on the bottom of orifice plate 1" from bottom. Place front guard on brackets and fasten.

5. Install variable speed crank arm on machine. See page 14. Remove existing bolts in front panel and use these holes for mounting.

6. OPTIONAL.

Install and wire loading switch (1201011) See wiring diagram and page 18.

7. Using 3-pronged fused plug, connect grounded 110 volt power to the control box. **MAKE SURE ALL SWITCHES ARE IN THE OFF POSITION.**

8. Wire 220 Volt single phase power into the starter box. Use terminal L1 and L2 in the starter box. For 3 phase machine use L1 and L2 and L3. Refer to wiring diagram, page 18.

9. Advise your LP gas supplier that the dryer takes liquid gas from the tank (not vapor). When the gas dealer hooks up the system, have him use the No. 1217021 excess flow valve furnished with the dryer. The No. 1217021 excess flow valve will shut off flow of gas, should the line break between tank and dryer. The valve furnished with the dryer will shut off quicker than those normally furnished by the gas supplier. We provide the valve as an extra safety precaution. Use a minimum of 1/2" ID tubing between tank and dryer - on runs over 100 feet use a larger diameter. Connect line from tank to short length of rubber hose on dryer.

10. **KEEP ALL GUARDS AND SHIELDS IN PLACE.**

"250" OPERATING INSTRUCTIONS

NOTE (A)

Turn Fan over by hand to make sure all sprockets, pulleys, feed rolls, and auger have no obstructions in them and turn freely.

1. Fill dryer with grain.
2. Turn off three switches in control cabinet, (A,B,C,) close main valve "D" and turn flip valve off on left side of dryer. (See photo at right).
3. Start fan.
4. Open flip valve on left side of machine (LP only).
5. Open main hand valve slowly (D) 3/4 of a turn.
6. Turn pilot switch to on position "A". Ignition will take place in six seconds. If not, turn switch "off", pause a few seconds and turn it back on. If ignition did not take place, refer to page 5 for trouble shooting.
7. After ignition, turn hand valve "D" all the way open slowly.
8. Adjust modulating valve "E" to desired temperature, by watching thermometer and turning adjusting screw.
9. In order to dry all of the corn in the upper section of the machine, it will require approximately one hour of continuous heat to dry the first load from 30% to 12% moisture.

Make sure automatic moisture control switch (B) is in the "off" position. This will disengage the ratchet solenoids and keep the dryer from unloading.
10. The cooling section of the dryer will have wet grain in it, and it will not be dried on the first load. This grain will have to be re-cycled back into the heating section.
11. For safe bin storage the grain is normally dried to 13% moisture. After one hour of drying on the first load, turn moisture control switch to "manual" position. This will engage ratchet solenoids and begin unloading the grain. When grain (in cooling section) has moved through and dried corn begins to auger out, test it for moisture content. If moisture content is too high, slow the unloading down or vice-versa.

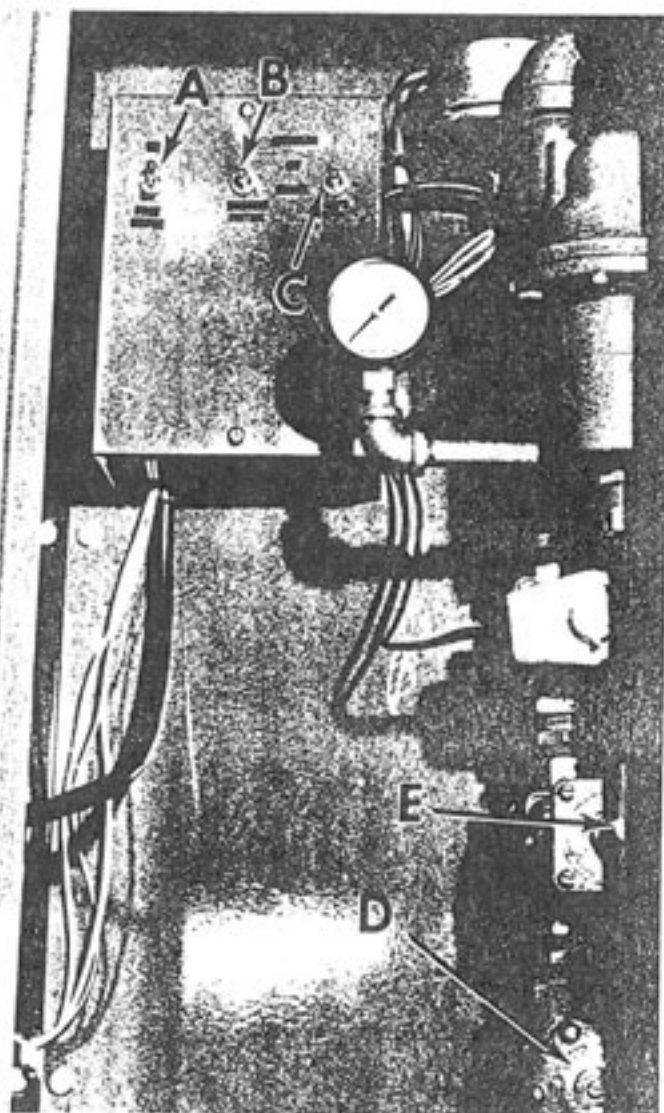
12. To slow the speed of unloading, a combination of two adjustments is available:

(A) By turning variable crank arm clockwise to slow unloading and counter clockwise to speed unloading. This is normally used for fine adjustment.

CAUTION: Run through the complete cycle from fast to slow at least once every day when machine is being operated.

This will keep all moving parts free. Do not put extreme pressure on belts.

IMPORTANT: Adjust variable speed pulley only when machine is operating.



SECTION I

NOTE (B)

The feed rolls can be adjusted independently of the side augers by sliding the "eccentric connecting rod" along the slotted bracket on the eccentric sprocket. The eccentric sprocket is located at the center of the base on the drive end of the dryer. Moving the eccentric connecting rod towards the center of the sprocket will decrease the stroke and slow down the unloading of the feed rolls. Moving it away from the center of the sprocket will increase the stroke and speed up the unloading of the feed rolls.

Be careful not to run more grain out of the feed rolls than the side augers can carry away! Four teeth is about the maximum adjustment that the augers can handle.

13. **IMPORTANT:** Never let the level of the grain in your dryer go below the top edges of the upper red wet holding bin. When this happens the air pressure inside of the dryer will drop and cause inefficiency and possible shut down.
14. After you have your dryer operating properly and drying your grain to the desired moisture content, you are ready to switch it to "automatic moisture control."

Refer to the following chart if you are drying shelled corn and set your moisture control dial. (Located on the right side of your dryer) at the correct number.

APPROXIMATE SETTING
FOR SHELLED CORN AND MOST SMALL GRAINS

Thermostat Setting	Set Control Dial At --	To Get -- Percent Moisture
140°	3.5	13 - 14%
180°	4.0	14 - 15%
180°	4.5	13 - 15%
180°	5.0	12 - 13%

Place 3-way switch for moisture control in the "automatic position"

When the combined temperatures of the air passing through the grain and the grain temperature are equal to the calibrated setting on the control dial, the ratchet pawls will engage the ratchet wheels and feed grain out of the dryer. Check the moisture content of the grain coming out of side auger by taking a moisture test. If the moisture is too high, increase the setting of the control one mark at a time until the correct moisture content is reached. Allow ample time between adjustments for the machine to correct itself, suggested time to be 1 hour.

Adjust the grain unloading mechanism to correspond with the rate of feeding of the grain by the automatic moisture control. These adjustments will only be slight if you have had your dryer operating correctly before switching it to "automatic moisture control."

The speed of the variable drive should be fast enough to cause the automatic moisture controls to operate intermittently. If the unloading mechanism is working too slowly, then the moisture controls will operate constantly and the grain will come out drier than the chart indicates.

15. Your dryer is a continuous flow dryer and it is necessary to hold the grain in the dryer for a period of time when finishing a run. Ratchet pawls should be disengaged as described in instruction Note B. This will give the grain remaining in the dryer time to become dried before the heat is automatically turned off. Allow about 30 minutes of drying time for high moisture grain (30%) and proportionately less for drier grain.

16. If you should accidentally get a foreign object in the grain feeding mechanism, shear pin on sprocket No. 1216401 at lower left side (as you face drive end of dryer) will help to protect the feeding parts from breakage. Replace this pin when necessary. Do not use hardened shear pins.
17. If you have followed the instructions carefully, your dryer will operate continuously without watching or adjusting as long as you keep it running and full of grain.

TROUBLE SHOOTING

1. IF FLAME DOES NOT LIGHT:

- A) Electrodes not positioned in flame properly. (See page 6)
- B) Electric power not on.
- C) 15 AMP fuse in plug blown.
- D) Machine not grounded. Connect 3 prong plug to 110V grounded service.
- E) Gas not on.
- F) Gas solenoid not opening – (faulty or loose wire)
- G) High limit control (reset) tripped out.
- H) Air pressure switch not functioning. (See #2 below)
- I) Broken wire from ignition board to electrodes.
- J) Ignition board faulty – replace only.

2. AIR PRESSURE SWITCH NOT FUNCTIONING:

- A) Dryer must be full of grain to operate. If dryer runs out of grain, the air will escape freely and loss of air will cause pressure switch to open circuit.
- B) Air tube from pressure switch into dryer may be filled with chaff.

3. HEAT SHUTS OFF:

- A) Dryer has run low of grain.
- B) Modulating valve may be faulty.

- C) High limit control may have cut out.
- D) Gas solenoid may be faulty.
- E) Faulty or broken electrodes.
- F) Out of gas.

4. NOT ENOUGH HEAT:

- A) Hand valve is not fully open.
- B) Adjust modulating valve.
- C) Increase pressure at pressure regulator. (This is set at factory, however, to increase gas flow, adjust screw at side of pressure regulator).

5. GAS LINES FROSTING UP:

- A) When first starting burner, open the main hand valve only partially until the unit becomes warm.

6. ELECTRIC CIRCUIT OUT OF ORDER:

- A) Check circuit with wiring diagram furnished with instructions.

7. AUTOMATIC MOISTURE CONTROL DOES NOT WORK

- A) Solenoid is burned out. Check and make replacement. In the meantime operate dryer manually by blocking solenoid up.
- B) Loose or broken wire at solenoid.

FENWAL IGNITION

OPERATION

Upon a call for heat, power is applied to the control board, creating the spark and powering the gas valve. Electronic timing allows the system to continue to spark and hold the gas valve open for a specified trial for ignition period. If a flame is not present at the end of the trial for ignition period, the system will lockout. If a flame is present, the system will continue to operate; provided the electrodes are immersed in the flame.

In the spark source, a capacitor is charged and

discharged rapidly through the primary of high voltage transformer. The current to charge the capacitor also energizes the valve control circuit so that as long as this action continues, the valve will remain open. The capacitor is discharged by a solid state switch, triggered by a neon circuit.

The flame detector monitors the spark current and the flame conductance to ground. If the spark of the flame is not present, feedback to the spark source removes power from the valve control circuit.

SECTION II

LOCATION OF ELECTRODE TIP

The electrode assembly should be located so that the tips are inside the flame envelope and about 1/2 inch above the base of the flame. **IMPORTANT:** Ceramic insulator should not be within or close to the flame pattern. Study the illustrations before positioning the electrodes.

NOTE: Electrode assemblies are precision components and should not be adjusted or disassembled. Electrodes should have a gap spacing of $0.125'' \pm 0.032''$. If this spacing is not correct, return the electrode assembly to the factory for replacement. Electrodes within their ceramic casing are **NOT** field adjustable. Adjust only the electrode mounting bracket. **WARNING: HIGH VOLTAGE.**

SAFETY CHECKS

1. Manually shut off the gas supply and apply power to the control board. The system shall lock-out after the trial for ignition period. Check that there is no voltage output between terminals V1 and V2 using a suitable voltmeter or neon tester.
2. Manually open the gas valve and apply power to the control unit. The system shall lockout after the trial for ignition period and there shall be no voltage between terminals V1 and V2 under the following conditions:

- (1) The low voltage electrode is shorted to the ground.
- (2) The high voltage electrode is shorted to ground.
- (3) The electrodes are shorted together.

NOTE

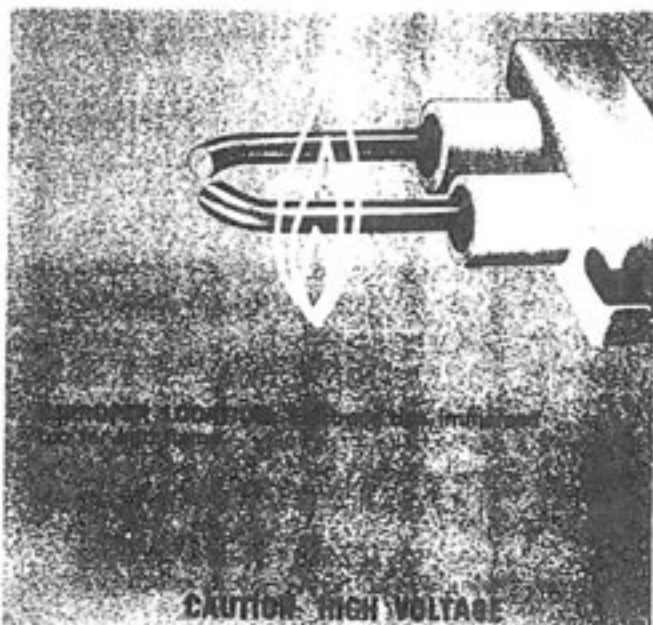
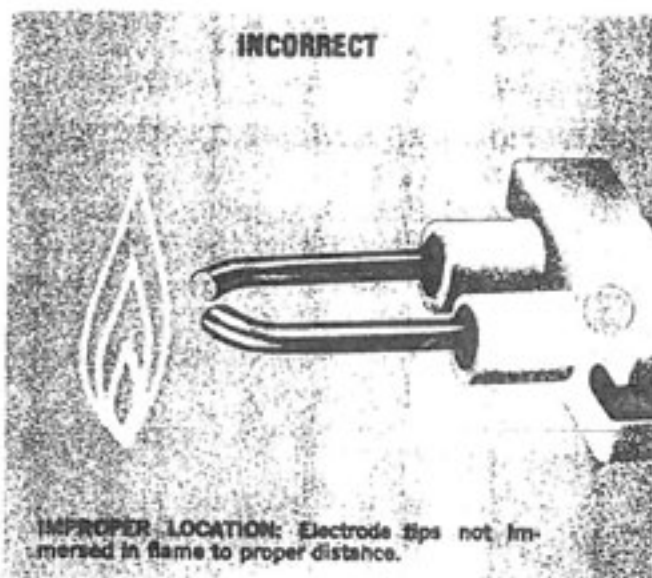
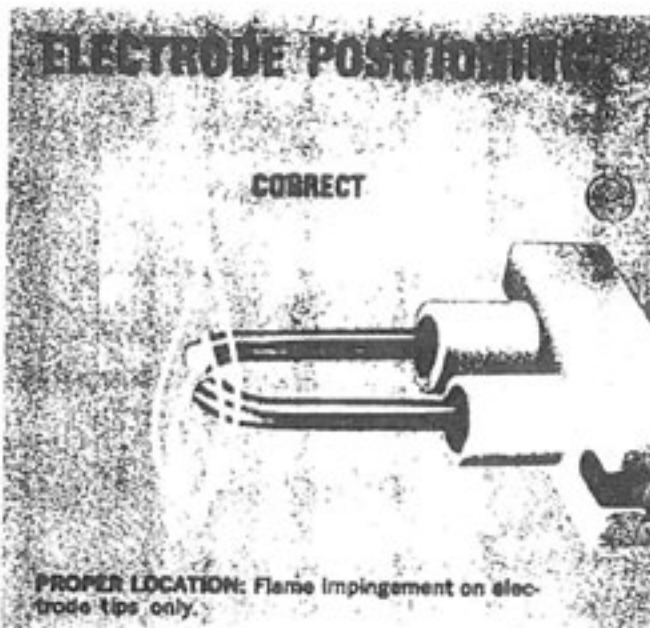
Recycle system before each test.

CAUTION

Use well insulated screwdriver for shorting electrodes.

REPAIRS

The Ignition System is not field repairable. Faulty units should be returned to the factory for repair or replacement.



LUBRICATION

All bearings on the grain augers are permanently lubricated and require no lubrication.

Grease variable speed pulley grease fittings (2) Once for every 100 hours of operation.

Chains and ratchet drives should be oiled periodically with #10 oil.

Check level of gear box frequently. Use #90 gearlube.

To increase the life of your variable drive belts it is recommended to remove and store them inside when the machine is idle for a long period of time. Grease variable pulley and oil parts before machine is put away for storage.

VARIABLE DRIVE BELT INSTALLATION

To remove variable drive belts on fan shaft and install new belt the following procedure is to be followed:

- 1) Loosen variable speed pulley until drive belts can be taken off.
- 2) Remove inspection plate on center of left hand side of dryer orifice housing.
- 3) Bring belt through the hole and bring fan blade around until belt is on the back side of the fan.
- 4) Repeat step (3) until all the fan blades have passed over the belt.
- 5) To install new belt reverse procedure (1) thru (4).
- 6) CAUTION: Do not pry on belt to install over fan.

This will break the cords in the belt or crack the outside, greatly reducing belt life.

CONVERSION TO DRYERATION

To convert the "250" to dryeration, the following procedure is to be followed:

- A) Enter cool section and remove 1252841 Center Floor panel near the orifice.
- B) Remove the three pipe plugs from burner head. See page 13.
- C) Install the three burner lead tubes shipped loose with dryer.

NOTE: DO NOT REMOVE TAPE ON THREADED END. THE TAPE WILL SEAL PIPE IN BURNER HEAD. IT WILL BE NECESSARY TO LOOSEN THE THREE BOTTOM BURNER UNITS TO INSTALL THE LEAD TUBES.

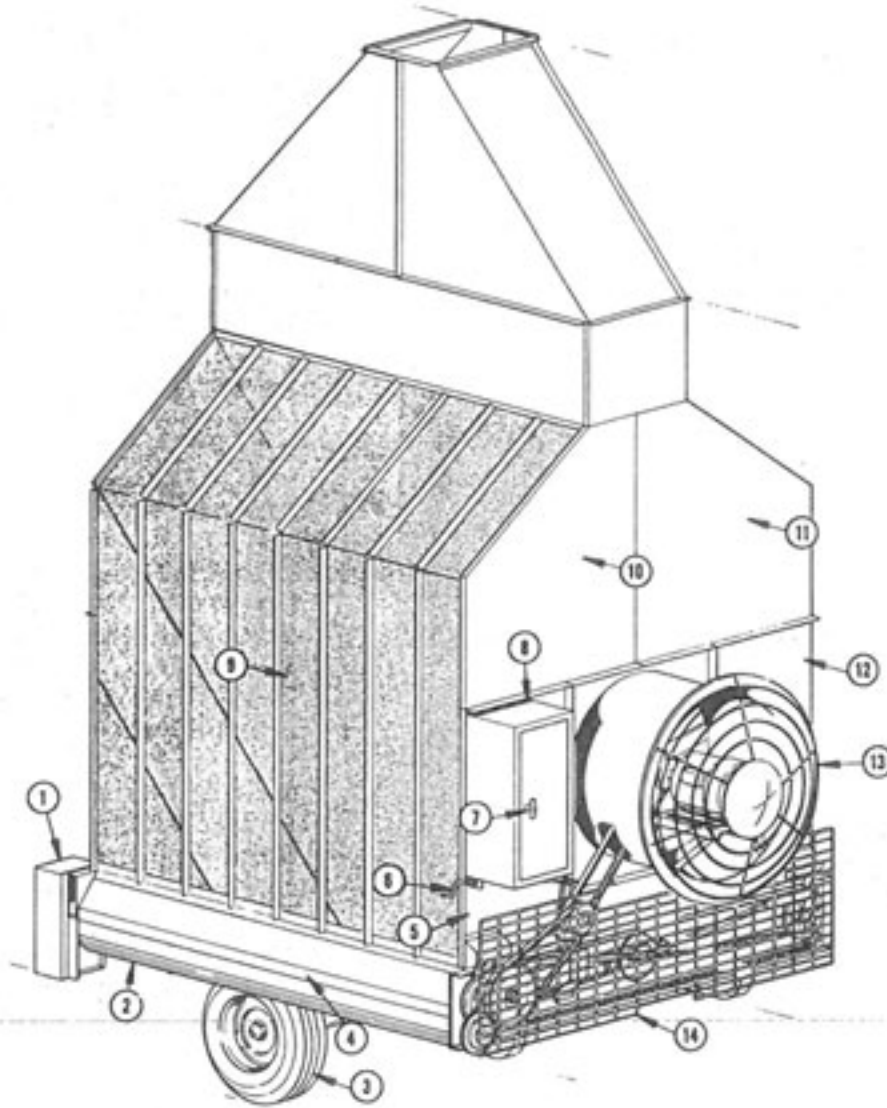
Make sure the hole on the end of the tube is facing rear of dryer. A spot of weld is indexed on the threaded end. This will indicate when hole is facing rear of dryer.

- D) Replace 1252841 center floor panel. Remove the two check out plugs in the panel and install the three burner tubes shipped with machine.

See illustration on page 13.

- E) Your dryer is now set up for dryeration.

MAIN MACHINE ILLUSTRATION

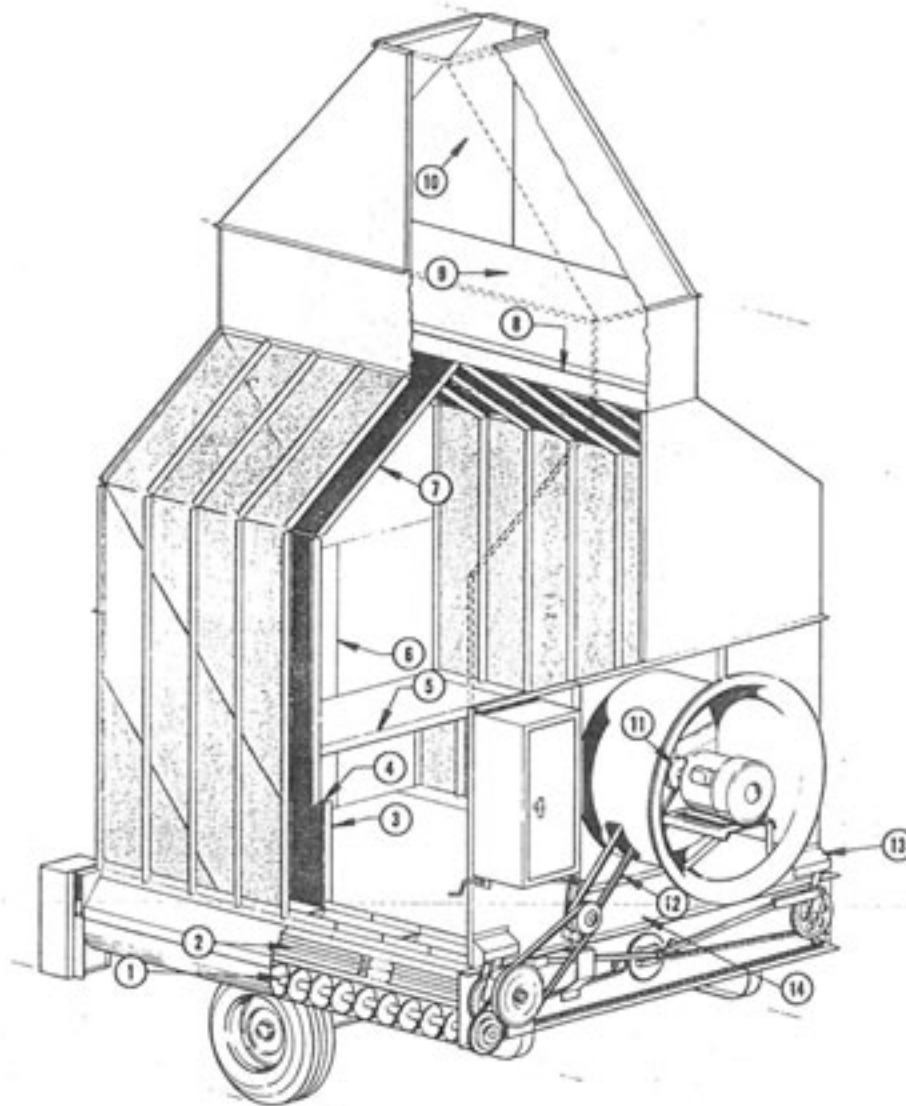


REF NO.	PART NO.	DESCRIPTION
1	1210313	Gear Box Cover Weldment
2	1210308	Right Side Auger Through Weldment
	1210309	Left Side Auger Through Weldment
3	0018993	Wheel 15" 5-bolt
	1218936	6.70 x 15 Implement Rib 6 Ply Tire and Tube
4	1212944	Side Cover
5	1212931	Lower Right Front Panel
6	1211126	Variable Drive Crank Assembly
7	1210306	Control Cabinet Door
8	1210305	Control Cabinet Weldment
9	1212975	Outside Perforated Panel
10	1212935	Upper Right Front Panel
11	1212934	Upper Left Front Panel
	1212930	Lower Left Front Panel
13	1210109	Fan Guard Weldment
14	1210324	Front Guard
15	1210329	Orifice Weldment

<u>Parts Not Shown</u>	-	1211048	Hub Assembly
	-	1210304	Axle Weldment
	-	1210303	Pole Weldment

MAIN MACHINE ILLUSTRATION CUT-A-WAY

SECTION III



REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	1210319	Right Side Auger Weldment	7	1212976	Upper Inside Perforated Panel
	1210318	Left Side Auger Weldment	8	1212979	Hopper Cap - 250
2	1211081	Feed Roll Assembly	9	1254769	Hopper Side
3	1212974	Inside Perforated Panel Bottom	10	1212941	Hopper Extension Side-Right Rear
4	1252600	Column Joiner Support	11	1216233	1-3/8" Bore 4" OD Pulley
	1252601	Column Joiner Angle	12	1216117	V-Belt, B-73 Super Aggie
5	1212943	Divider Floor Panel (3 req)	13	1252833	Solenoid Cover
6	1211128	Rear Door Assembly - 250	14	1212929	Panel Below Orifice

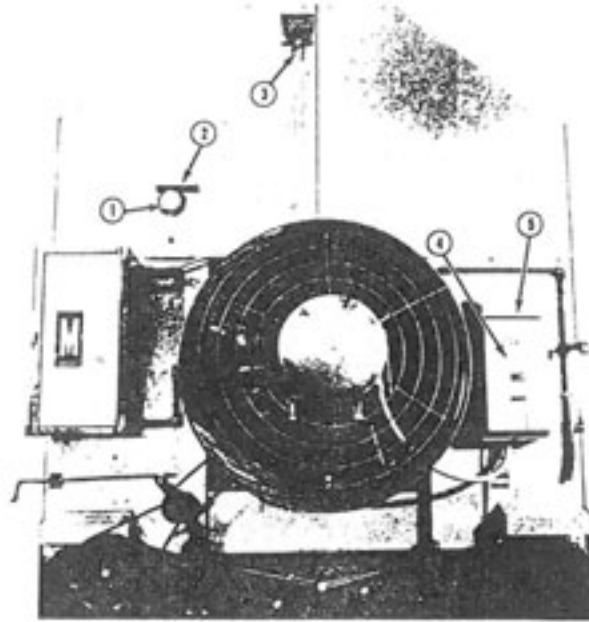
REAR PANELS - NOT SHOWN

1212932	Lower Left Rear Panel
1212933	Lower Right Rear Panel
1212936	Upper Right Rear Panel
1212937	Upper Left Rear Panel

FLOOR PANELS - NOT SHOWN

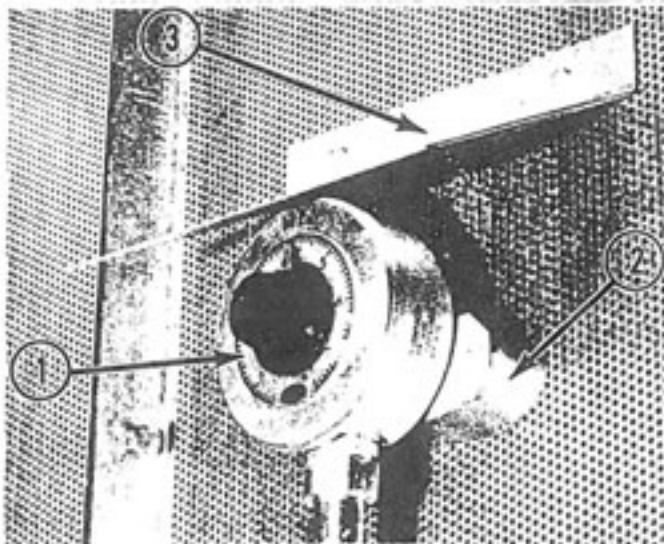
1252834	Front Divider Floor Right & Left
1252835	Orifice Floor Shield (2 req)
1252841	Center Front Divider Floor Panel
1212980	Orifice Seal Plate (2 req)

FRONT END CONTROLS



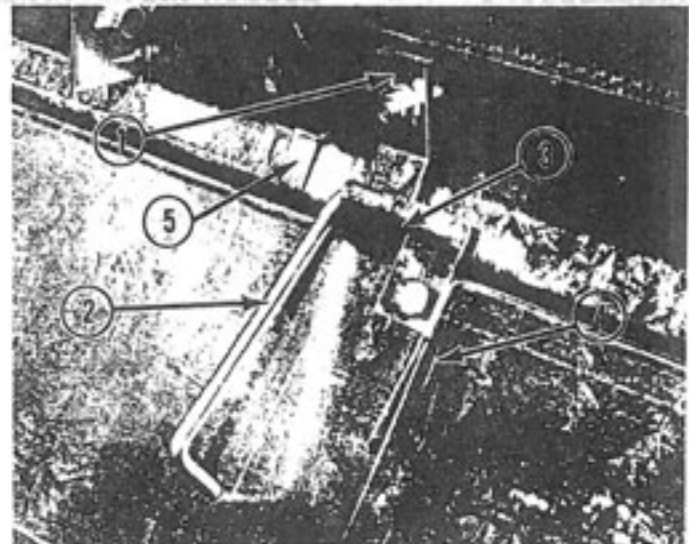
REF NO.	PART NO.	DESCRIPTION
1.	1218975	Thermometer
2.	1212877	Thermometer Rain Shield
3.	1217018	High Limit Control
4.	1216929	5 Starter
	1216928	7½ Starter
	1216927	10 Starter
5.	1252832	Starter Box Cover

MOISTURE CONTROL



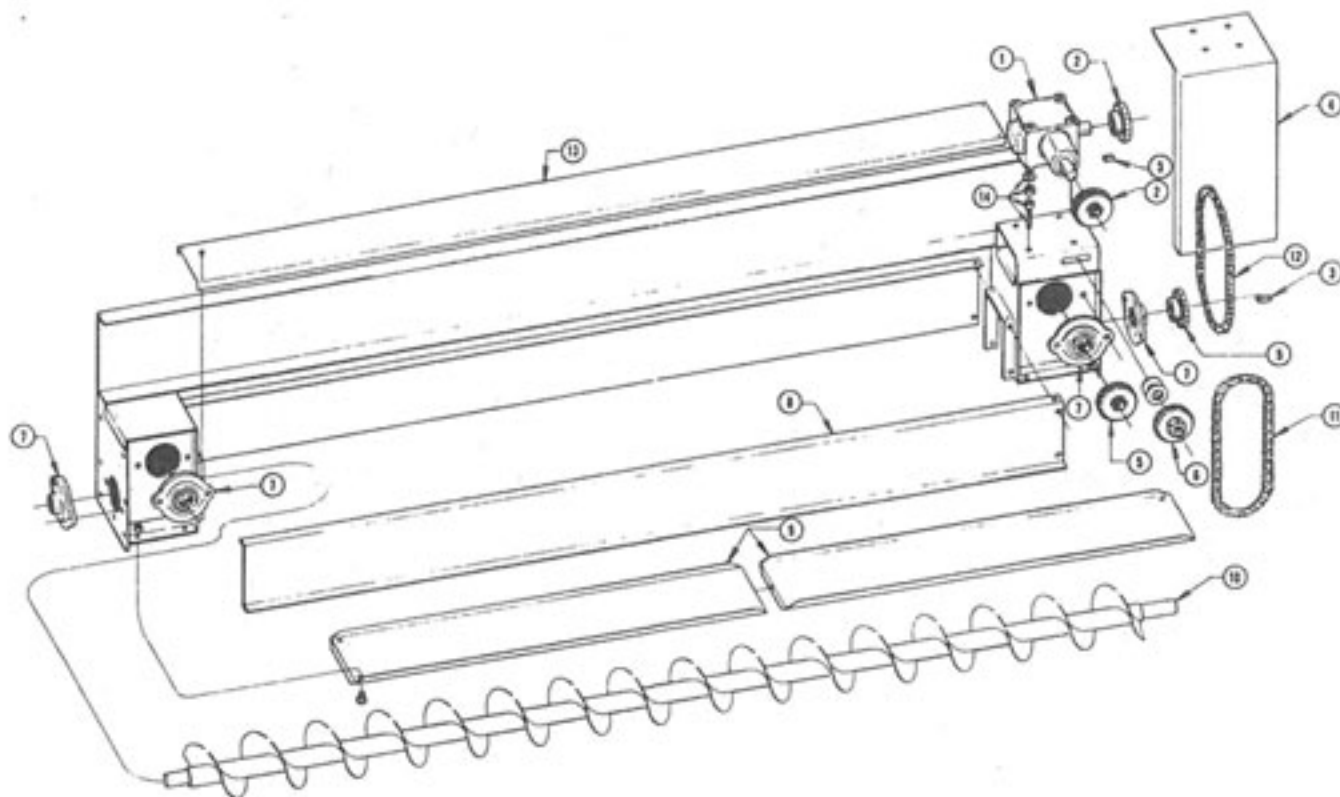
REF NO.	PART NO.	DESCRIPTION
1.	1216851	Thermoswitch
2.	1215650	Thermoswitch Standoff
3.	1210031	Thermoswitch Shield

SIDE COVER LATCH



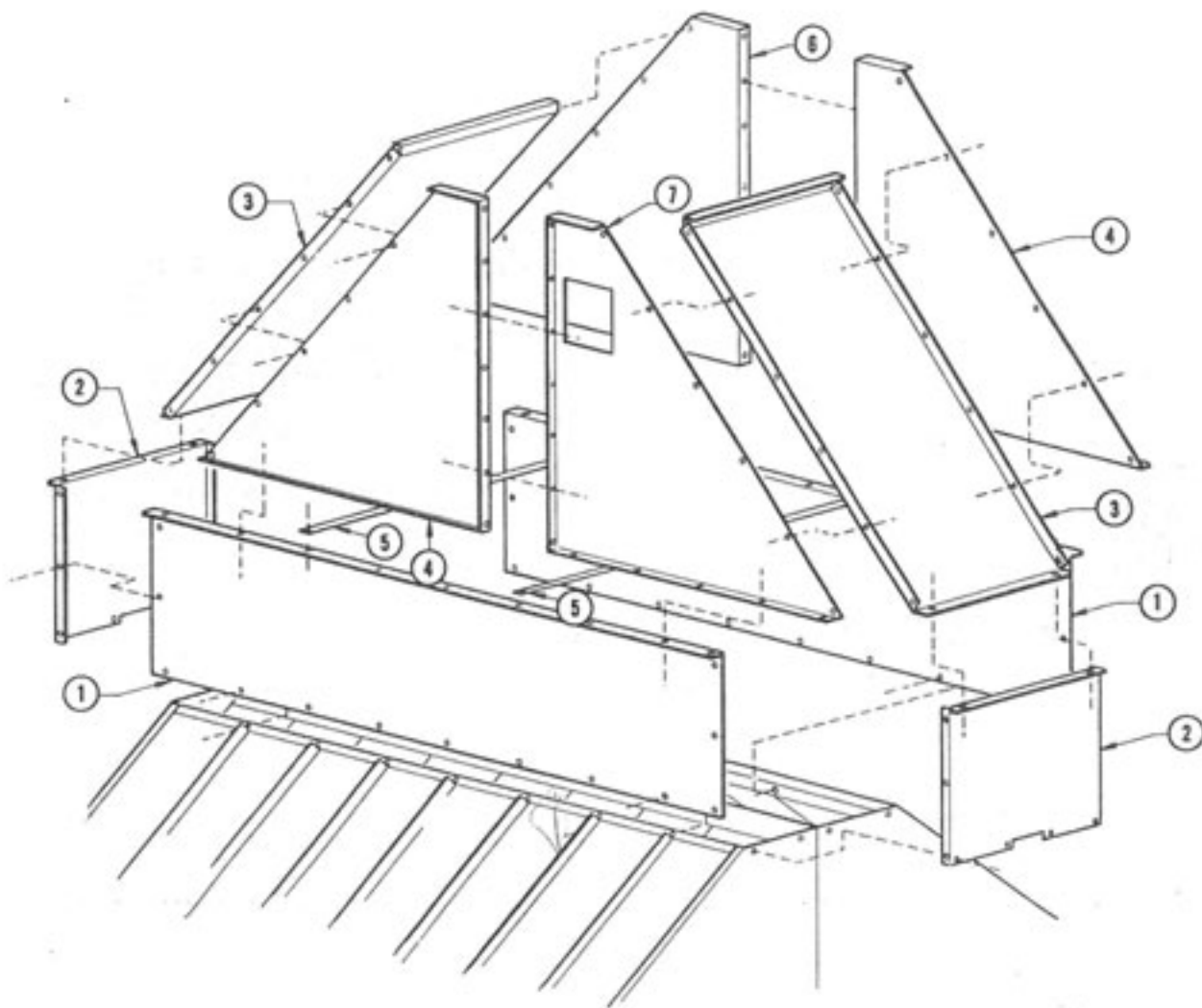
REF NO.	PART NO.	DESCRIPTION
1.	1214461	Side Cover Hinge
2.	1215203	Right Side Cover Hook
	1215204	Left Side Cover Hook
3.	1214656	1" Hinge
4.	1212944	Side Cover
5.	1252831	Stop-Side Cover Hook

CROSS AUGER ASSEMBLY



REF NO.	PART NO.	DESCRIPTION
1	1216605	Gear Box (A115)
2	1216405	Sprocket, 1" Bore, 16 Tooth
3		1/4 x 3/4" Keys (4 Req'd)
4	1210313	Gear Box Cover Weldment
5	1206400	Sprocket, 1-1/4" Bore, 16 Tooth
6	1216403	Idler Sprocket, 3/4 " Bore ^{5/8} "
7	1206000	2-Bolt Flange Bearing, 1-1/4" Bore
8	1254776	Cross Auger Sides
9	1254777	Cross Auger Bottom
10	1210312	Cross Auger Weldment
11	1216305	Chain, 25-1/2" Long w/Offset and Conn. Link
12	1216303	Chain, 33" w/Offset and Conn. Link
13	1254775	Cross Auger Cover
14		3/8-16 x 2-1/2" Full Thread Stud Bolt
		3/8-16" Hex Nut
		3/8-16" Lock Washer

HOPPER ASSEMBLY

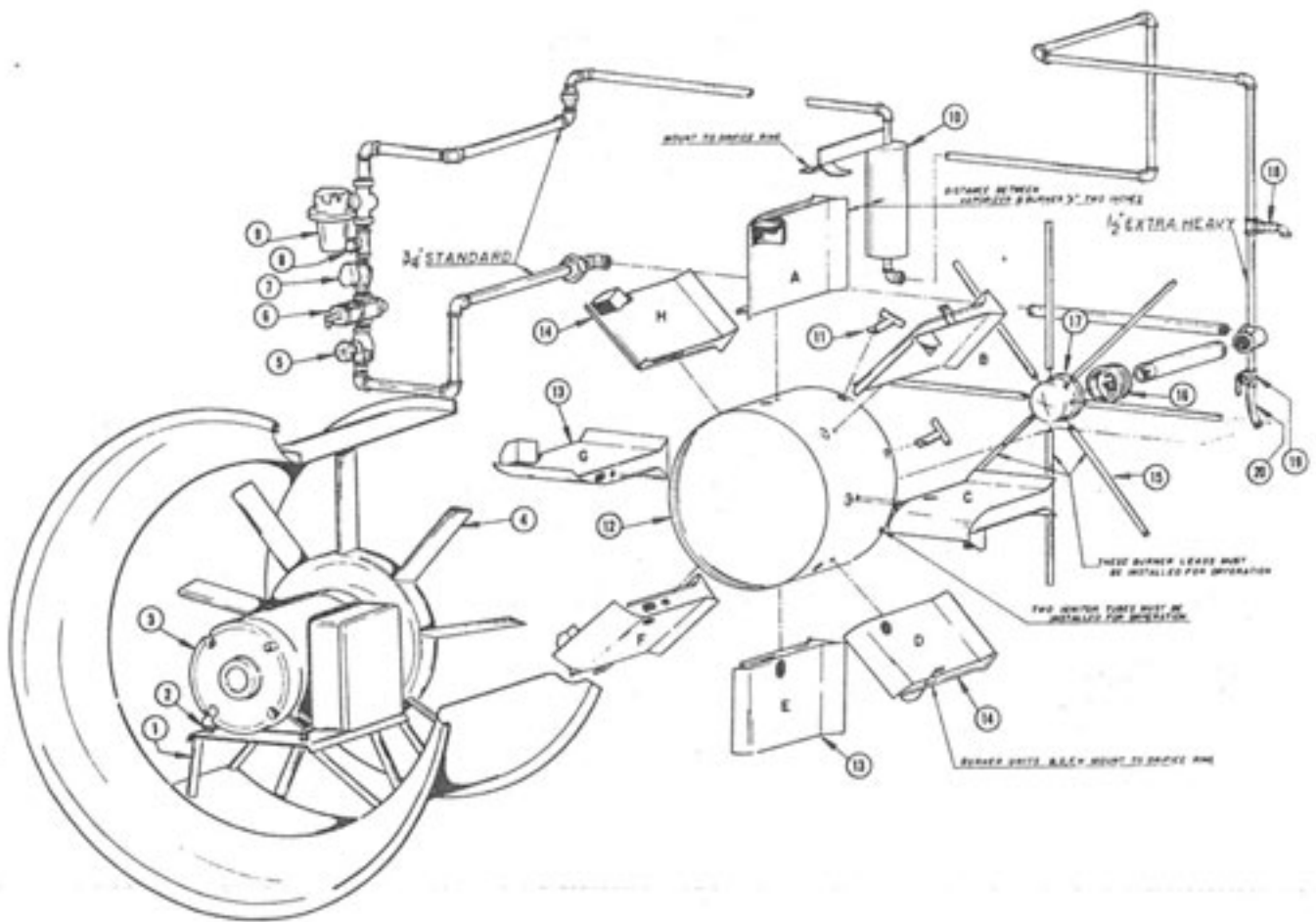


Note: Use 5/16-18x3/4 Pan Head Bolts for mounting Red panels #1 & 2 to top of dryer. Mount from inside out. Use 5/16-18x1/2 HHCS at all other locations.

REF NO.	PART NO.	DESCRIPTION
1	1254769	Hopper Side
2	1212938	Hopper End
3	1212939	Hopper Extension Slope
4	1212940	Hopper Extension Side Right Rear – Left Front
5	1252830	Cross Tie – Hopper Extension
6	1212941	Hopper Extension Side Left Rear
7	1212942	Hopper Extension Switch Side

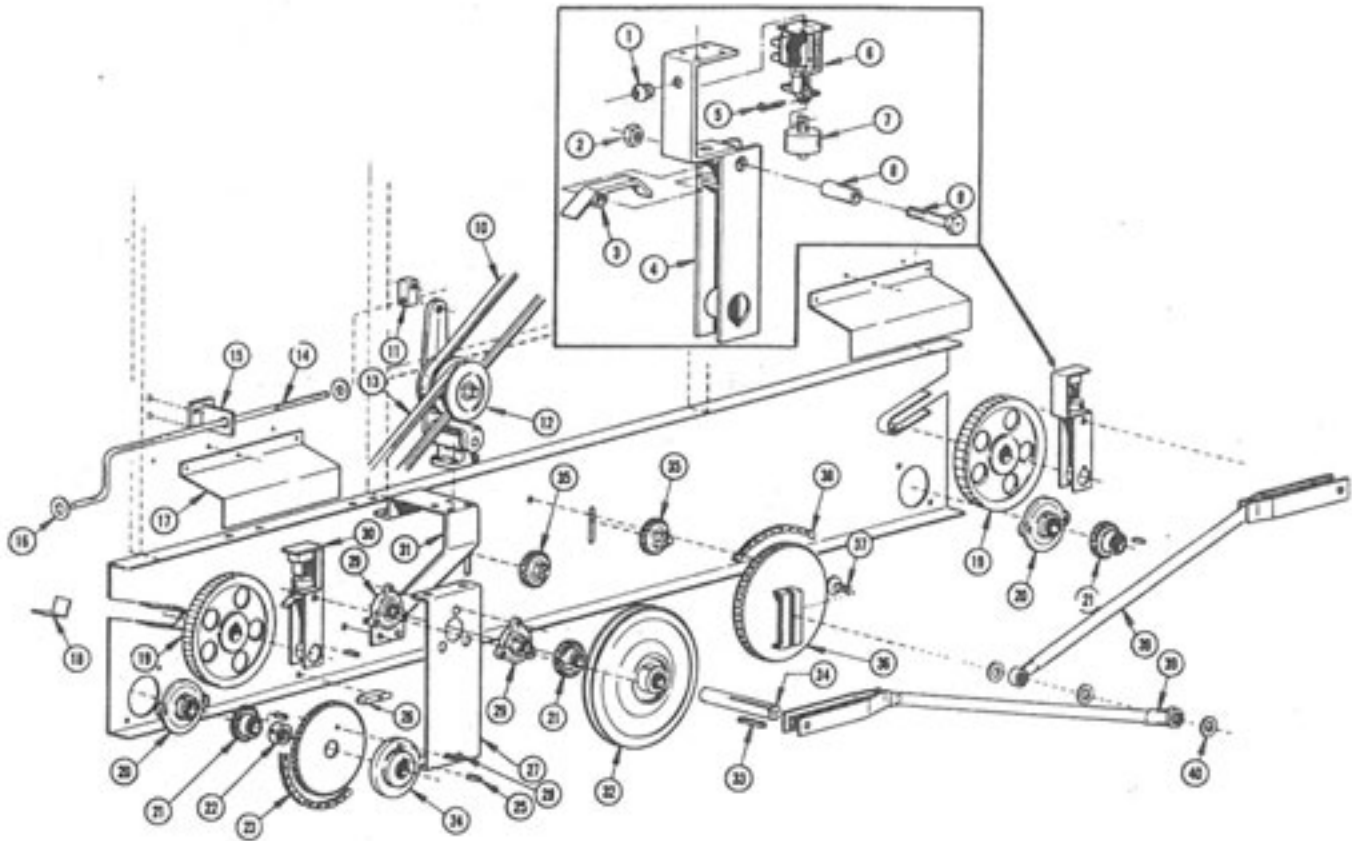
PIPING AND BURNER ASSEMBLY

SECTION III



REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	1210258	Motor Mount-Base	8	1207002	Gas Pressure Dial Guage
2	1210323	Stand Off Motor Mount	9	1217006	Pressure Regulator (LP Only)
3	1216922	5 H.P. Single Phase Electric Motor	10	1210317	Vaporizer Tank Weldment
	1216923	7-1/2 H.P. Single Phase Electric Motor	11	1210316	Ignition Tube Weldment
	1216924	10 H.P. Single Phase Electric Motor	12	1210322	Burner Tube Weldment
			13	1210315	Burner Unit Weldment
			14	1210325	Burner Unit Weldment w/Mounting Tab
4	1210330	5 H.P. - 6 Blade 15° Fan Weldment w/Bushing	15	1210314	Burner Lead Tube
	1210331	7-1/2 H.P. - 6 Blade 18° Fan Weldment w/Bushing	16	1218023	Reducing Bushing 3" to 1-1/4"
	1210332	10 H.P. - 9 Blade 22° Fan Weldment w/Bushing	17	1215501	Burner Head
5	1217011	Main Gas Hand Valve	18	1217013	Pressure Relief Valve
6	1217012	Modulating Valve L.P.	19	1217015	Liquid Line Hand Shut Off Valve
7	1217002	Main Solenoid Valve L.P. (Repair Coil for 1217002 is No. 1227001)	20	1217005	Inlet Hose

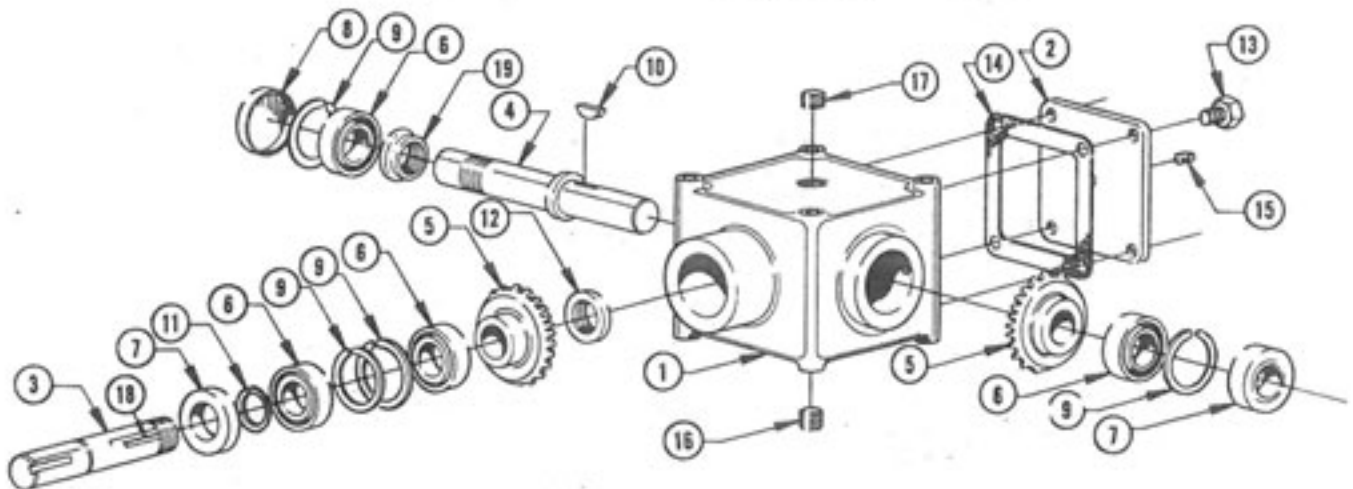
FRONT CHANNEL ASSEMBLY



REF NO.	PART NO.	DESCRIPTION	REF NO.	PART NO.	DESCRIPTION
1	1218972	5/16" ID Rubber Grommet	22	1218974	1-1/4" Lock Collar
2	0008288	5/16-18" Lock Nut	23	1216304	Chain, RC-40, 44-1/2" Long w/Offset and Conn. Link
3	1215724	Ratchet Dog Extrusion	24	1218957	Shear Flange
4	1210036	Ratchet Guide Arm Weldment	25		1/4 x 1-1/2" Key
5	0008199	1/8 x 1" Cotter Pin	26	0018255	Wood Block
6	1216856	Solenoid	27	1214217	Idler Shaft Mount
7	1210029	Solenoid Weight Weldment	28		Cotter Key
8	1215571	Ratchet Dog Bushing	29	1216000	1-1/4" 3-Bolt Flange Bearing
9	0008214	5/16 x 2-1/2" H.H.C.S.	30		Ratchet Guide Arm (See Blow Up)
10	1216117	V-Belt, B-73 Super Aggie	31	1253426	Variable Speed Brkt. Base
11	1215190	Variable Crank Nut	32	1216228	12" OD x 1-1/4" Bore Pulley
12	1216600	Variable Speed Assembly (Maurey)	33		Key 1/4 x 1-1/2"
13	1216115	V-Belt, B-51	34	1215041	Shaft-Front Idler & Feed Roll
14	1215191	Variable Drive Crank Arm	35	1216403	Chain Idler Sprocket 3" 5/8"
15	1210320	Variable Speed Crank Mounting Bracket Weldment	36	1211079	Eccentric Sprocket Assembly
16		5/8" Flat Washer	37		1/2-13" Carriage Bolt - Full Thread
17	1252833	Solenoid Cover	38	1216306	RC40 x 191" Chain
18	1213321	Feed Roll Retainer	39	1210321	250 Connecting Arm Weld
19	1216404	Ratchet Wheel	40		1/2" Lock Washer & Nut
20	1206000	1-1/4" 2-Bolt Flange Bearing			
21	1206400	1-1/4" ID 16 Tooth Sprocket			

GEAR BOX ASSEMBLY

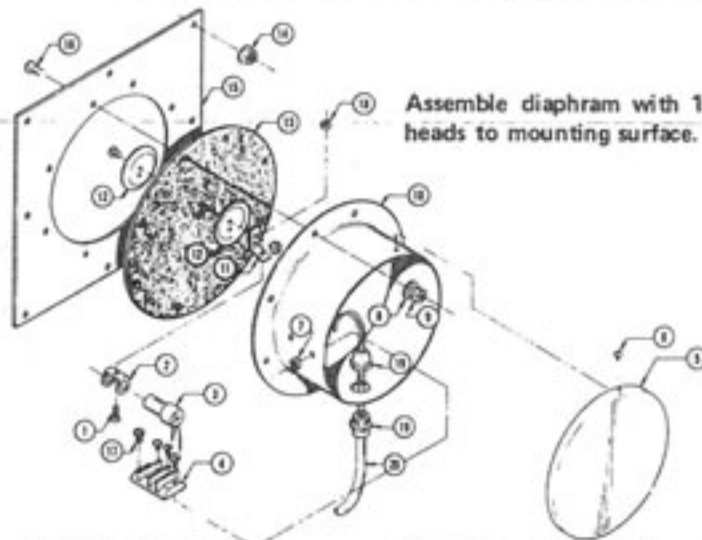
SECTION III



REF NO.	PART NO.	DESCRIPTION
1	1226624	A-115-1 Housing
2	1226625	A-115-2 Cover
3	1226623	Input Shaft
4	1226622	Output Shaft
5	1226500	Bevel Gear
6	1226003	Bearing Cone
	1226004	Bearing Cup
7	1228600	Seal
8	1228601	Cap
9	1228251	Snap Ring
10	1228254	Woodruff Key

REF NO.	PART NO.	DESCRIPTION
11	1228250	Snap Ring
12	1228256	Stake Nut - (Input)
13		Cap Screw
14	1228602	Gasket
15	1228000	Level Plug
16	1228001	Drain Plug
17	1228002	Vent Plug
18	1228253	Key
19	1228255	Stake Nut - (Output)

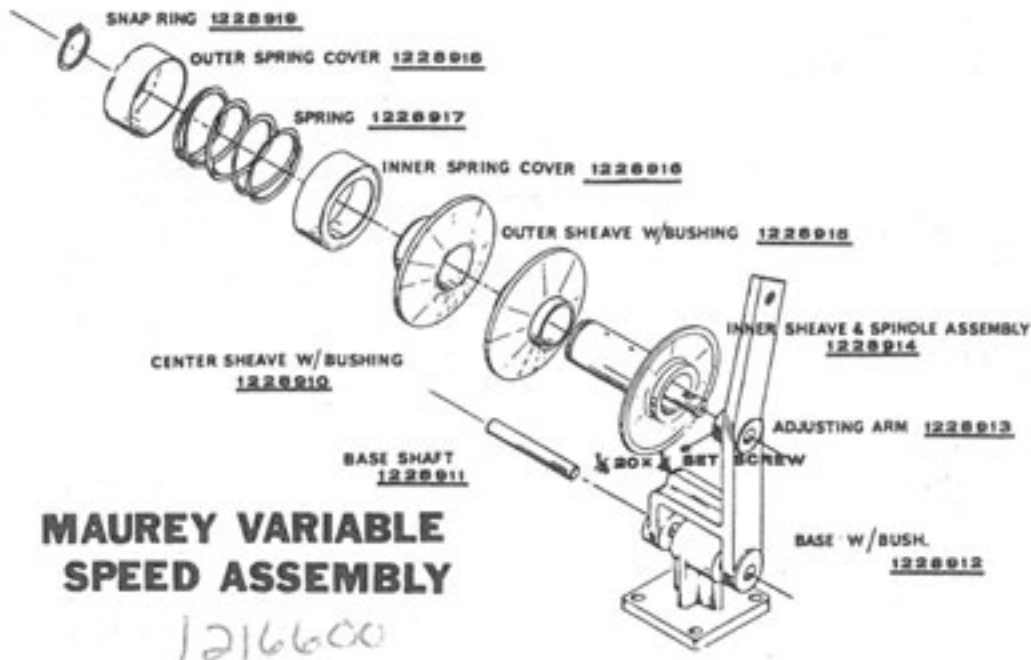
LEVEL SWITCH ASSEMBLY



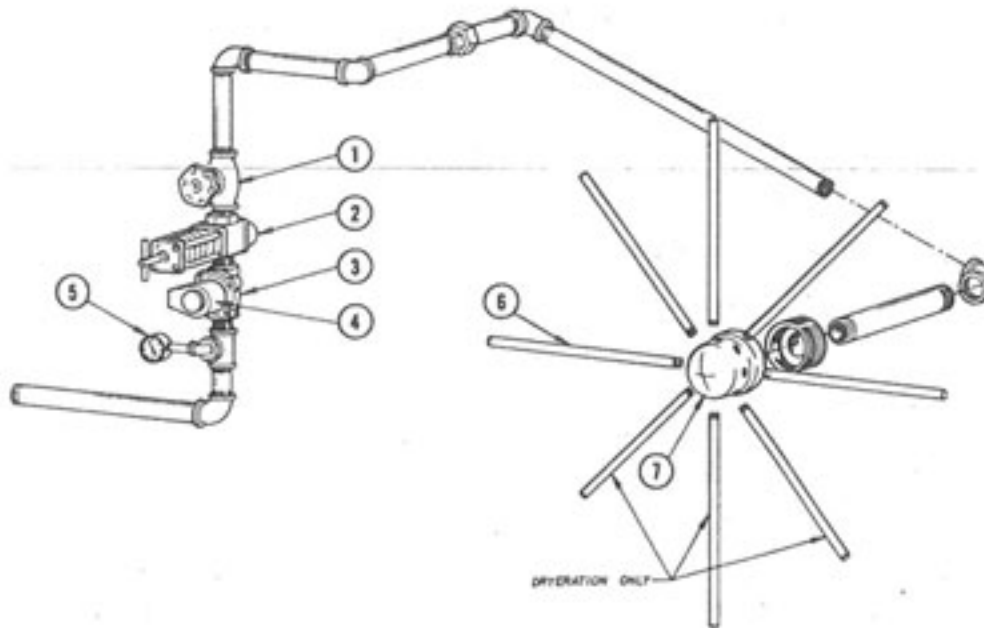
Assemble diaphragm with 11/16" slack from top of screw heads to mounting surface.

REF NO.	PART NO.	DESCRIPTION
1		6-32 x 1/4" Lg. Screw
2	1206801	Mercury Switch Mounting Clip
3	1206800	Mercury Switch (Cotton Covered Wire Only)
4	1206802	Terminal Block
5	1205202	Level Control Switch Housing Cover
6		#8 x 1/2" Lg. Sheet Metal Screw
7		#8-32 Hex Nut w/ Lock Washer
8		1/4" - Lock Washer
9		1/4" - 20 Hex Nut
10	1205201	Level Control Switch Housing

REF NO.	PART NO.	DESCRIPTION
11	1202946	Mercury Switch Mounting Bracket
12	1205200	Mercury Switch Bracket Installation Washer
13	1208996	Level Control Diaphragm
14		5/16-18" Whiz Nut
15	1201833	Level Control Switch Back Plate
16		1/4"-20 Round Head x 1/2" Lg. Screw
17		8-32 x 5/8" Screw
18		6-32" Hex Nut
19	1216893	Connector
20	1216920	Cable (State Length Req'd)



NATURAL GAS PIPING ASSEMBLY



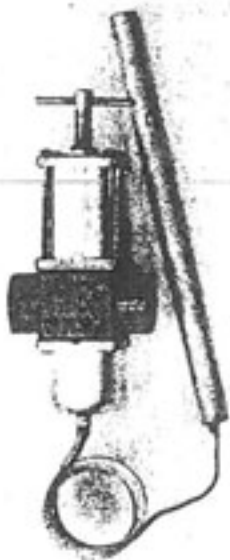
REF NO.	PART NO.	DESCRIPTION	
1	1237003	Main Gas Hand Valve	
2	1237002	Main Modulating Valve 90-210 1/4	
3	1237000	Main Solinoid Valve 1237001 - 1/4 120V	
4	1227001?	Replacement Coil Only GET ASCO #	
5	1207002	Gas Pressure Dial Guage	
1215987	6	1210314	Burner Tube Lead
1215501	7	1215501	Burner Head

LP MODULATING VALVES

All "LP" Modulating Valves are either "Penn" or "Marsh" repair elements listed below valve.

Illustration of the two items are visually accurate. When ordering repair parts order by:

- 1) Manufacturer Name
- 2) Title Listed
- 3) Part No.



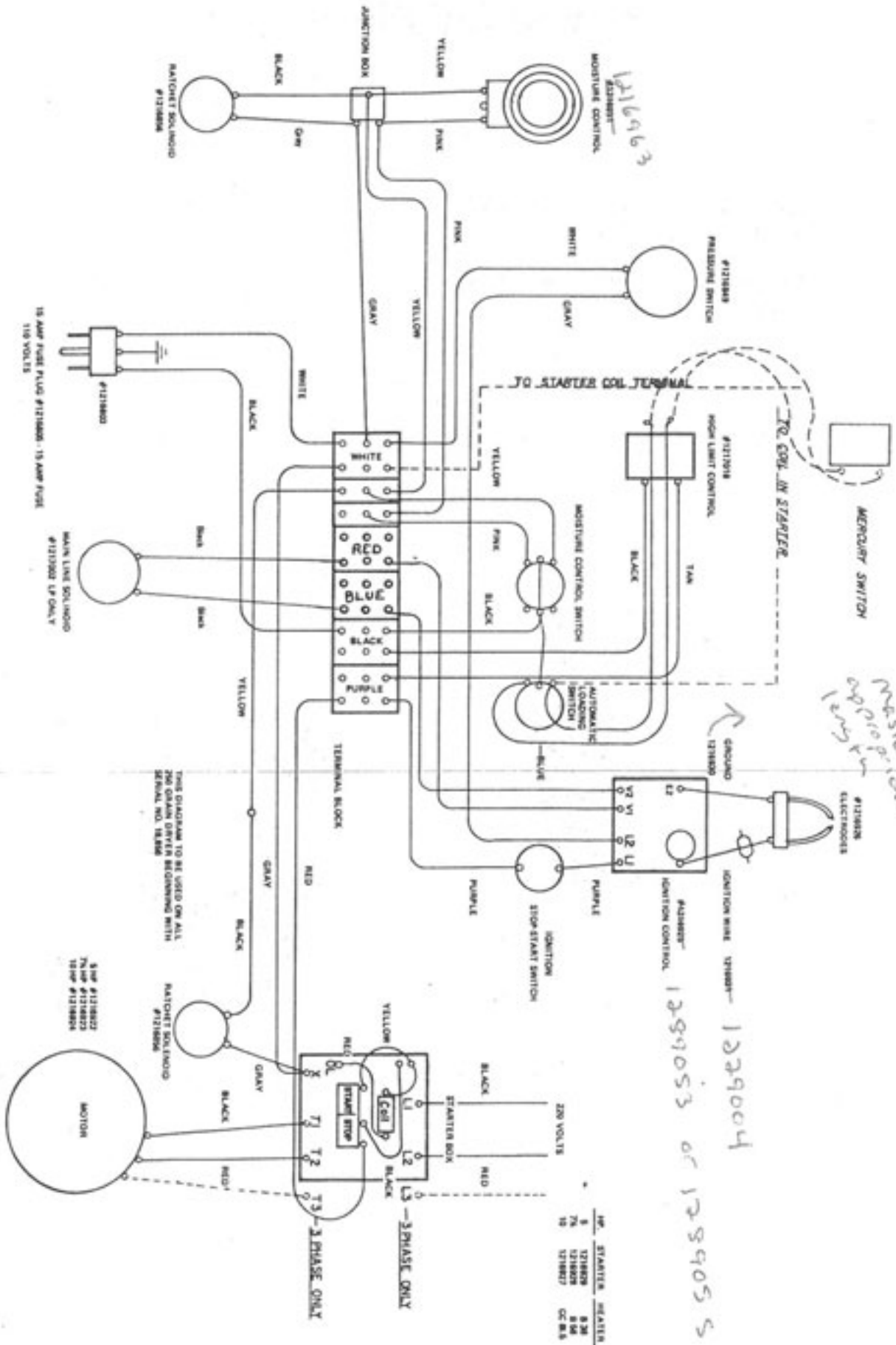
Penn
Repair Element
#1227002



Marsh
Repair Element
#1227007

*NO LONGER AVAILABLE -
CUSTOMER NEEDS TO
BUY 1217012 1/2" MOD VALVE
90°-210°*

250 WIRING DIAGRAM
SINGLE PHASE



THIS DIAGRAM TO BE USED ON ALL 200 GIGAWATT SYSTEMS BEGINNING WITH SERIAL NO. 12888

SEE #121802
7 1/2 HP #121800
10 HP #121807

See them for 128905 or 128904

128905 or 128904

INSTRUCTIONS FOR ORDERING PARTS:

1. ALL PARTS MUST BE ORDERED FROM YOUR DEALER.
2. GIVE MODEL NUMBER and SERIAL NUMBER that is stamped on the NAME PLATE of your machine.
3. Order from your PARTS LIST, found below each illustration, as this is the ONLY means we have of identifying the parts you need. Order by the QUANTITY DESIRED, the PART NUMBER and the DESCRIPTION OF THE PART.

NOTE: The Company reserves the right to incorporate any changes in design without obligation to make these changes on units previously sold.



OWNERS NOTICE

**TO INSURE WARRANTY CLAIMS, BE CERTAIN TO FILL
OUT AND MAIL WARRANTY CARD WITHIN 30 DAYS.**

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